GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Quality management systems, PG_00055044		
Field of study	Management and Production Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	5.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Manufacturing and Production Engineering -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Aleksandra Wiśniewska	
	Teachers	dr inż. Piotr Sender dr inż. Krzysztof Doerffer dr hab. inż. Beata Świeczko-Żurek dr inż. Sławomir Szymański dr inż. Aleksandra Wiśniewska dr inż. Aleksandra Wiśniewska	

Lesson types and methods of instruction							
	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	30.0	0.0	0.0	60
	E-learning hours included: 0.0						

Learning activity and number of study hours					
	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	60	8.0	57.0	125

Subject objectives	The aim of the course is to provide with the issues of quality management methods and tools used in quality management and the requirements of ISO 9000.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W08] has basic management knowledge, including process and product quality management, and detailed knowledge of integrated and standardized quality, environmental, health and safety management systems	The student knows, understands and is able to apply the principles, methods and tools for managing the quality of processes and products. The student is also able to identify the areas of integration of the quality management system with the safety management system and with the environmental management system.	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge
	[K6_U01] can find the necessary information in professional literature, databases and other sources, knows basic scientific and technical journals in the field of production management, quality and operation management, can integrate the obtained information, formulate conclusions and justify opinions	The student uses the basic tools to diagnose quality problems. Designs and analyzes control cards, calculates and analyzes the process quality capability coefficients. Student classifies methods and tools of quality management. The student is able to obtain information needed to carry out tasks related to quality management based on external and internal sources of information.	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	[K6_K01] feels the need for self-realization by learning throughout life, is looking for modern and innovative solutions in their actions, is able to think creatively and act in an entrepreneurial way	The student defines the principles of managing people in quality systems. The student knows and is able to apply the principles of leadership and motivation. The student understands the need to update their knowledge and is able to identify and use the sources of knowledge. The student knows the principles of Continuing Improvement and the benefits of skilful use of the potential of human resources in terms of creativity and innovation.	[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work
Subject contents	Quality - its definitions and aspects. Other basic terms related to quality management. TQM as the basis for management systems. Models of excellence as the a selfasessment tool. Sectored quality systems. Legal aspects of product quality QMS according to ISO 9001. Structure. Requirements Process orientation in management systems Basic tools of process assessment and improvement Control charts. Process capability analysis. Receiving inspection. Costs of quality Other normative management systems (environment, OHS, ...). Integration of management systems		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture. Exam (written)	60.0%	40.0%
	Laboratory	100.0%	30.0%
	Exercises	60.0%	30.0%

Recommended reading	Basic literature	1. Notatki wykładowe materiały niepublikowane - dostępne w formie elektronicznej na stronie wykładowcy 2. Hamrol A. Zarządzanie i inżynieria jakości, WYdawnictwo Naukowe PWN, Warszawa 2021 3. Bugdol M. System zarządzania jakością według normy ISO 9001:2015, Onepress 2018 4. Banaszak Z., Kłos S., Mleczko J. Zintegrowane systemy zarządzania, PWE 2018 5. Blikle J.A. Doktryna jakości. Rzecz o skutecznym zarządzaniu, Onepress 2018 6. Grudowski P., Wiśniewska M. Kultura jakości, doskonałości i bezpieczeństwa w organizacji, CeDeWu 2020 7. Grudowski P., Przybylski W., Siemiątkowski M. (red. W. Przybylski) Inżynieria jakości w technologii maszyn, Wydawnictwo PG, 2006 8. Hamrol A. Mantura W. Zarządzanie jakością. Teoria i praktyka. PWN, Warszawa 2005 9. Grudowski P. Projektowanie, nadzorowanie i doskonalenie systemu jakości według normy PN-EN ISO 9001:2009 w oparciu o podejście procesowe, ODDK, Gdańsk 2010 10. Inżynieria produkcji. Kompendium wiedzy, Opracowanie zbiorowe, PWE Polskie Wydawnictwo Ekonomiczne 2017
	Supplementary literature	1. Hamrol A.: Zapewnienie jakości w procesach wytwarzania. Wydawnictwo Politechniki Poznańskiej, Poznań 1995. 2. Grudowski P. Jakość, środowisko i bhp w systemach zarządzania. Bydgoszcz: Wydawnictwo OPO-AJG, 2004 3. Muhlemann A. P., Oakland J. S., Lockyer K. G.: Zarządzanie. Produkcja i usługi, Wydawnictwo Naukowe PWN, Warszawa 1997 4. Strybała A. Zarządzanie strategiczne w teorii i praktyce firmy, Wydawnictwo Naukowe PWN 2012 5. Rudawska A. Logistyka procesów produkcji, Wydawnictwa Komunikacji i Łączności WKŁ 2016
	eResources addresses	Adresy na platformie eNauczanie: Systemy Zarządzania Jakością, W/L/C, ZiIP, sem. 01 zima 2022/2023 (PG_00055044) - Nowy - Moodle ID: 24270 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=24270
Example issues/ example questions/ tasks being completed	1. Methods and tools of quality management 2. Statistical process control 3. Model of the quality system according to ISO 9001 4. Receiving inspection	
Work placement	Not applicable	

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